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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SUGHRUE MION, PLLC				
2100 PENNSYLVANIA AVENUE, N.W.				
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EXAMINER				
NGUYEN, HUNG				
ART UNIT		PAPER NUMBER		
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11/20/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/519,547

Applicant(s)

KIM ET AL.

Examiner

Hung Henry V. Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 1-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF 100)
- Paper No(s)/Mail Date 12/28/04/9/13/06
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of group II (claims 8-17) in the reply filed on August 25, 2008 is acknowledged.

Drawings

2. Figures 1A, 1B, and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Abstract

3. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 8-17 are rejected under 35 U.S.C. 102(e) as being anticipated by

Kruschwitz et al (U.S.Pat. 6,594,090).

With respect to claim 8, Kruschwitz et al (figure 1) disclose a projection system which forms an image by processing light emitted from a light source (20) using a light valve (52) in response to an input image signal and magnifies and projects the image onto a screen (60) through a projection lens unit, the projection lens unit (24, 38) comprising all of the structures set forth in the instant claim such as: a pair of cylinder lens arrays (42a, 42b or 1201/120b) which are installed on a path of a light beam emitted from the light source (20) and each is comprises of lens cells array with central axes inclined at different angles so that a light beam which diverges symmetrically with respect to its optical axis is aligned so as to reduce an angle of the divergence in a certain direction.

As to claims 9-14, Kruschwitz et al discloses the lens cells are arranged such that the inclination angles of the central axis increase with distance from the center of the cylinder lens array and the lens cells are disposed such that the central axes are arrayed in curved rows and change consecutively. The central axes are incorporated by connecting the central axes and wherein the cylinder lens array is symmetric about its vertical bisector and about its horizontal bisector and is points symmetric with respect to its center and the lens cells are arrayed such that the central axes are inclined at angles each corresponding to the sum of an incidence angle of an incidence beam a recited in the instant claims (see figure 1 and col.5, lines 1-20).

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As to claim 15, Kruschwitz et al discloses the cylinder lens arrays are disposed such that the light beam radially emitted from the light source is aligned so that the light distribution corresponds to the size of the light valve (see col. 5, lines 10-14).

With respect to claim 16, Kruschwitz et al discloses a scrolling unit (34, 36) for scrolling the incident light beam and a color separator (50) for separating an incident beam into different color light beams wherein the scrolling unit and the color separator are installed on the light path between the pair of cylinder lens array and the light valve.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kruschwitz et al (U.S.Pat. 6,594,090) in view of Lambert (U.S.Pat. 6,288,815).

With respect to claim 17, Kruschwitz discloses a projection system comprising substantially all of the limitations of the instant claim as discussed above except for a correction lens disposed between the cylinder lens array. Lambert discloses (figure 5) a pair of cylinder lens arrays (20) having an aberration correction lens (25) installed between the cylinder lens arrays. In view of such teachings, it would have been obvious to a skilled artisan to employ the correction lens as taught by Lambert between the cylinder lens arrays of Kruschwitz for the purpose of correcting the aberration of the cylinder lens arrays thereby improving the quality of the images.

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8. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandrom et al (U.S.Pat. 6,624,880) in view of Ohta (U.S.Pat. 4,988,188).

With respect to claims 8-15, Sandrom (figures 4-5) disclose a projection system which forms an image by processing light emitted from a light source (10) using a light valve in response to an input image signal and magnifies and projects the image onto a screen (60) through a projection lens unit, the projection lens unit comprising all of the structures set forth in the instant claim such as: a pair of cylinder lens arrays (310, 320) which are installed on a path of a light beam emitted from the light source (10). Sandrom does not expressly disclose that each of the cylinder lens array comprises of lens cells array as recited in the instant claims of the present application. Ohta discloses a projection system having a pair of cylinder lens array (4a, 4b) and each of the cylinder lens array having lens cell arrayed with central axes inclined at different angles for diverging the light beam symmetrically with respect to the optical axis and for reducing the angle of the divergence in a certain direction (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the pair of cylinder lens array as taught by Ohta into the projection system of Sandrom for the purpose of aligning the luminance distribution and improving the light efficiency of the projection system.

Prior Art Made of Record

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Wangler et al (U.S.Pat. 6,583,937) discloses an illuminating system of a projection system and has been cited for technical background.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on 571-272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Hung Henry Nguyen/
Primary Examiner
Art Unit 2851**

hvn
11/18/08

